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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|------------------|----------------------|-------------------------|------------------|
| 09/619,793 | 07/20/2000 | Daniel V. Cantrell | BW-406 | 3645 |
| 75 | 90 12/10/2002 | | | |
| John F Salazar | | | EXAMINER | |
| | Williamson Tower | | WALLS, DIONNE A | |
| Louisville, KY 40202 | | | ART UNIT | PAPER NUMBER |
| | | | 1731 | |
| | | | DATE MAILED: 12/10/2002 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | Application No. | Applicant(s) | | | |
|---|--------------------------|---|--|--|--|
| | 09/619,793 | CANTRELL, DANIEL V. | | | |
| Office Action Summary | Examiner | Art Unit | | | |
| | Dionne A. Walls | 1731 | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period f r Reply | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | |
| Status 1)⊠ Responsive to communication(s) filed on <u>05.</u> | Δυαμεί 2002 | | | | |
| | nis action is non-final. | | | | |
| , | | osecution as to the merits is | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims | | | | | |
| 4)⊠ Claim(s) <u>1-13</u> is/are pending in the application. | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | |
| 5) Claim(s) is/are allowed. | | | | | |
| 6)⊠ Claim(s) <u>1-13</u> is/are rejected. | | | | | |
| 7) Claim(s) is/are objected to. | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. | | | | | |
| Application Papers | | | | | |
| 9)☐ The specification is objected to by the Examine | | | | | |
| 10) The drawing(s) filed on is/are: a) acce | | | | | |
| Applicant may not request that any objection to the | | | | | |
| 11) The proposed drawing correction filed on | | oved by the Examiner. | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | | | |
| 12) The oath or declaration is objected to by the Examiner. | | | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | | | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | |
| a) ☐ All b) ☐ Some * c) ☐ None of: | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | |
| 2. Certified copies of the priority documents have been received in Application No. | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). | | | | | |
| a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | | | |
| Attachment(s) | | | | | |
| Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449) Paper No(s) | 5) Notice of Informal | y (PTO-413) Paper No(s) Patent Application (PTO-152) | | | |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-5, 7-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopsch et al (US. Pat. No. 5,944,026) in view of Hampl, Jr. (US. Pat. No. 5,921,249) and Drewett et al (US. Pat. No. 5,172,708).

Kopsch et al discloses a cigarette which may be wrapped with two layers of paper, the interior tobacco rod wrapping being of highly porous (10-20,000 CORESTA) paper which can be made mainly or entirely of suitable wood pulp (col. 9, lines 27-36). While Kopsch et al may not disclose that the inner wrap comprises 55 – 85 % wood fibers and 25-45% flax, or that the wood fiber is about 70% by weight and the flax fiber is about 30% by weight, Hampl, Jr. discloses that one method used for controlling the permeability of a wrapping paper is varying the fiber furnish that is used to make the paper. In general, it is known that if longer fibers are used to construct the wrapping paper, the paper will have a higher permeability (col. 1, lines 49-53). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the inner wrapping of Kopsch et al to include longer fibers in the papermaking

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furnish used to make said wrapping in order to ensure a highly permeable inner wrapping pursuant to the teaching of Hampl, Jr. While Kopsch et al modified by Hampl, Jr. may not disclose that the longer fibers which are to be included in said highly porous wrapping is flax, Drewett discloses that conventional cigarette wrappers comprise a mixture of wood and textile fibers, and also discloses that of cigarette wrapper of its invention can contain a mixture of flax and wood (i.e. eucalyptus/pine) fibres (col. 1, lines 11-19; col. 7, lines 20-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add flax fibres (which are longer than wood-pulp fibres) to the inner wood-based wrapper of Kopsch et al modified by Hampl, Jr. because use of cellulosic fiber mixtures (i.e. wood and textile fibres) to comprise cigarette wrappers is known in the tobacco art as disclosed in Drewett, and such mixture would result in a wrapper with higher permeability, due to the presence of the longer fibres, which is the goal of Kopsch et al. Lastly, while Kopsch modified by Hampl, Jr. and Drewett may not explicitly teach an inner wrapper having 55 – 85 % wood fibers and 25-45% flax, or wood fiber of about 70% by weight and flax fiber of about 30% by weight, it would have been obvious to one having ordinary skill in the art at the time of the invention to optimize the composition of the inner wrapper of Kopsch et al, which taught having a majority (if not, an entirety) of wood-based paper, by adding enough longer-length fibers to ensure a highly porous paper, pursuant to the teachings of Hampl, Jr., specifically flax fibers, as taught in Drewett, and arrive at the claimed percentage of flax fibers, in order to achieve the optimum air-permeability of the cigarette wrapper.

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Regarding claims 4-5, Drewett et al does disclose smoking articles having wrappers that comprise wither of these two types of soft/hard wood fibers (col. 7, lines 20-68). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to fabricate the inner wrapper of Kopsch et al modified by Hampl, Jr. to include either pine or eucalyptus as its wood fiber source because these types of woody fibers are known materials for cigarette paper fabrication in the tobacco art.

Regarding claims 11-12, while the wrapper of the combined references may not specifically state that the basis weight of the inner wrap is from about 12-15, or about 12, g/m², it would follow that the inner wrapper would have a basis weight within this range since the paper is highly porous which would, therefore, render it very lightweight. However, in the alternative, it would have been obvious to one having ordinary skill in the art at the time of the invention to construct the inner wrapper of the combined reference such that it met the claimed basis weight in order to ensure a highly porous or net-like inner wrap consistent with the teaching in Kopsch et al.

3. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopsch et al (US. Pat. No. 5,944,026) in view of Hampl, Jr. (US. Pat. No. 5,921,249) and Drewett ((US. Pat. No. 5,172,708), and further in view of Schneider et al (US. Pat. No. 4,548,677).

While Kopsch modified by Hampl, Jr. and Drewett may not teach that the flax is selected from the group consisting of 50-90% flax fibers and 10-50% shive flax fibers, Schneider et al discloses cigarette paper having from 20 – 50% bast fibers of flax (col.

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1, lines 43-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate flax having 50% bast fibers (which falls in the claimed range of bast fibers) in order to benefit by its influence on diffusing carbon monoxide out of the cigarette as taught in Schneider et al (col. 1, lines 38-41).

Response to Arguments

Applicant's arguments, filed on August 5th, 2002, with respect to the pending claims, as it relates to the Ross reference, has been considered and is persuasive; therefore, these arguments are now moot in view of the new ground(s) of rejection.

Applicant's remaining arguments have also been fully considered but they are not persuasive. As they relate to the combination of references utilized in the prior art rejection, it is deemed that the rejections stated in the above paragraphs adequately address these assertions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne A. Walls whose telephone number is (703) 305-0933. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Dionne A. Walls

December 8, 2002